

### **AMENDMENTS TO THE CLAIMS**

*The listing of claims will replace all prior versions and listings of claims in the application:*

#### **Listing of Claims:**

1. (Currently Amended) A balloon catheter comprising:  
a catheter shaft having a distal end, an inflatable balloon disposed on the distal end, a proximal end coupled to a connecting piece, a guiding wire lumen extending between the proximal and distal ends, and an inflation lumen extending from the connecting piece to the inflatable balloon,  
wherein the guiding wire lumen comprises a pipe having coupled proximal and distal portions disposed substantially concentrically within the catheter shaft,  
wherein the proximal and distal portions are each made of a solid material, the material of the proximal portion being more rigid than the material of the distal portion,  
wherein a transitional portion between the proximal and distal portions of the pipe is provided with kink protection at least partially overlapping the proximal and distal portion of the pipe, and  
wherein the inflation lumen is defined by an annulus between an exterior of the pipe and an interior surface of the catheter shaft.
- 2.-3. (Canceled)
4. (Previously Presented) The balloon catheter according to claim 1, wherein the proximal portion comprises a metallic material and the distal portion comprises a plastic material.
5. (Previously Presented) The balloon catheter according to claim 1, wherein the transitional portion comprises the abutting ends of the proximal and distal portions.

6. (Previously Presented) The balloon catheter according to claim 1, wherein the kink protection comprises a sleeve.

7. (Previously Presented) The balloon catheter according to claim 1, wherein the kink protection comprises a metal spring.

8. (Previously Presented) The balloon catheter shaft according to claim 7, wherein the metal spring is arranged in the inflation lumen.

9.-12. (Canceled)

13. (Previously Presented) The balloon catheter according to claim 4, wherein the proximal portion is provided with a lubricity-enhancing coating.

14.-20. (Canceled)

21. (Currently Amended) A balloon catheter comprising:

a catheter shaft having a distal end including an inflatable balloon and a proximal end coupled to a connecting piece, the catheter shaft comprising a pipe having proximal and distal portions, the proximal and distal portions of the pipe being coupled together by a sleeve that at least partially overlaps the proximal and distal portions of the pipe, separate first and second boreholes extending longitudinally within at least a portion of the catheter shaft,

wherein the first and second boreholes extend from the proximal end to the distal end, the first longitudinal borehole defining a guiding wire lumen and the second longitudinal borehole defining an inflation lumen that provides fluid communication between the connecting piece ~~to~~ and the inflatable balloon, the proximal portion comprising a material having a greater rigidity than the distal portion.

22. (Previously Presented) The balloon catheter of claim 21, wherein the proximal portion comprises a metallic material and the distal portion comprises a plastic material.

23. (Previously Presented) The balloon catheter according to claim 21, wherein at least the first borehole in the proximal portion includes a lubricity-enhancing coating.

24. (Currently Amended) A balloon catheter comprising:

a catheter shaft having a distal end including an inflatable balloon and a proximal end coupled to a connecting piece, the catheter shaft comprising a pipe having proximal and distal portions, the proximal portion of the pipe being coupled to the distal portion of the pipe, a transition comprising the coupling ends of the proximal and distal portions, and a kink protection being disposed about the transition and at least partially overlapping the proximal and distal portions of the pipe,

wherein separate first and second boreholes extend longitudinally within at least a portion of the catheter shaft, and

wherein the first borehole defines a guiding wire lumen and the second borehole defines an inflation lumen for connecting the connecting piece to the inflatable balloon.

25. (Previously Presented) The balloon catheter of claim 24, wherein the pipe comprises a metallic material.

26. (Previously Presented) The balloon catheter according to claim 24, wherein at least the first longitudinal borehole includes a lubricity-enhancing coating.

27. (Previously Presented) The balloon catheter according to claim 13, wherein the lubricity-enhancing coating comprises a plastics tube applied to the inner wall of the pipe.

28. (Previously Presented) The balloon catheter according to claim 27, wherein the outer surface of the plastics tube is modified by plasma treatment or corona treatment for increasing adherence at the inner wall of the pipe.

29. (Previously Presented) The balloon catheter according to claim 27, wherein the plastics tube is provided with an outer adhesive layer.

30. (Previously Presented) The balloon catheter according to claim 27, wherein the plastics tube extends beyond the proximal portion and into at least a portion of the distal portion.

31. (Previously Presented) The balloon catheter according to claim 1, further comprising a nylon tube coating within the transitional portion, the nylon tube coating extending at least partially within the proximal and distal portions.

32. (Previously Presented) The balloon catheter according to claim 23, wherein the lubricity-enhancing coating comprises a plastics tube applied to the inner wall of the pipe.

33. (Previously Presented) The balloon catheter according to claim 24, wherein the kink protection comprises a metal spring.